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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,343	10/30/2003	Yukako Taka	03657/HG	5393
1933	7590	03/24/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			SHEWAREGED, BETELHEM	
767 THIRD AVENUE			ART UNIT	PAPER NUMBER
25TH FLOOR			1774	
NEW YORK, NY 10017-2023			DATE MAILED: 03/24/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

(4)

**Office Action Summary****Application No.**

10/699,343

**Applicant(s)**

TAKA ET AL.

**Examiner**

Betelhem Shewareged

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) 14-27 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-13 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 11/26/03.  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-13, drawn to ink jet recording sheet, classified in class 428, subclass 32.1+.

II. Claims 14-27, drawn to method of preparing, classified in class 427, subclass 256+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, (e.g., providing a base material, providing forming a thin porous film capable of accepting ink, wherein the porous film contains a hydrophilic binder crosslinked via irradiation of ionizing radiation, micro particles, and at least one of a nitrogen-containing compound, a sulfur-containing compound, a phenol compound and/or a polyvalent metal salt. Laminating the porous film with the base material).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with Marshall J. Chick on 03/11/2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-13. Applicant in replying to this Office action must make affirmation of this election. Claims 14-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6, 8, 10, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsubaki et al (US 2004/0037978 A1).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Tsubaki discloses an ink jet recording sheet comprising a support and a porous layer containing particles and a binder containing a polymer compound crosslinked by irradiating ionizing radiation, wherein the polymer has a polymerization degree of not less than 300 and a plurality of side chain on main chain of the polymer compound (abstract). The polymer compound is a photo-dimerizable type [0052]. The weight ratio of particles to binder is 2:1 to 50:1 [0071]. The particle size of the particles is preferably not more than 4  $\mu\text{m}$ , more preferably not more than 0.2, and most preferably not more than 0.1  $\mu\text{m}$  [0076]. The porous layer further comprises polyvinyl alcohol as an additional binder [0067]. Various types of additive can be incorporated in the porous layer [0081]. The additives are tertiary amino compound [0082], metallic salt containing zirconium, aluminum and magnesium [0089].

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubaki et al. (US 2004/0037978 A1), as applied to claims 1-6, 8, 10, 12 and 13, above, in further view of Katoh et al. (US 2004/0065230 A1).

Tsubaki does not disclose a polyallylamine compound, a sulfur compound or a phenol compound in the porous layer.

Katoh teaches an ink jet recording sheet comprising a support and a porous ink receiving layer containing particles, a hydrophilic binder and a polymer (abstract). The ink receiving layer comprises agents such as (1) phenol derivatives [0093, and 0101], (2) sulfur containing compounds [0094 and 0102], (3) amine derivatives [0095 and 0110], and (4) multivalent metal salts [0096 and 0111].

Tsubaki and Katoh are analogous arts because they are from the same field of endeavor that is the ink jet recording art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the agents of katoh with the invention of Tsubaki in order to enhance the light resisting property of the layer. See [0091] of Katoh.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Betelhem Shewareged', with a stylized flourish at the end.

Betelhem Shewareged  
March 17, 2005.